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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,796	03/22/2004	James F. McGuckin JR.	1267	1069
7590	07/11/2006		EXAMINER	
NEIL D. GERSHON REX MEDICAL 1011 HIGH RIDGE RD Stamford, CT 06905			SONNETT, KATHLEEN C	
			ART UNIT	PAPER NUMBER
			3731	

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/805,796	MCGUCKIN ET AL.
Examiner	Art Unit	
Kathleen Sonnett	3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-23 is/are rejected.
- 7) Claim(s) 11,21,22, 24 and 25 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4/11/06, 10/31/05</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> .

Continuation of Attachment(s) 6). Other: IDS: 5/9/05,4/04/05,11/2/04,9/24/04.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims (1, 10), 2, 4, 8, 12, (13, 15), 14, 18, and (21, 22, 23) are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims (1), 18, 17, 10, 14, (17), 18, 19, and (22) of copending Application No. 10/889,429 in view of Simon (U.S. 4,425,908). Although the conflicting claims are not identical, they are not patentably distinct from each other because the designation of the struts and connecting struts being in the first or second region does not change the claimed invention. Regarding claim 22 of the instant application, Simon discloses a filter with struts of two different lengths that end in hook elements. The struts

alternate between long and short struts so that the hook elements do not become interconnected when the filter is collapsed. Therefore, it would have been obvious to one of ordinary skill in the art to modify the claimed invention of claim 22 of copending Application No. 10/889,429 to include the limitation of the first set of struts being axially offset from the second set of struts in order to prevent the hook elements from becoming interconnected when the filter is collapsed. Regarding claim 23, the end portion of the strut can define any plane since the end portion could be considered the last third of the strut. Three points can be chosen within this portion that would define any plane and the hooks, regardless of their orientation, would fall into a correctly chosen plane.

2. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Objections

3. Claim 11 is objected to because of the following informalities: typographical errors. The last word of line 1 should read, "strut" instead of "struts". The word "other" should follow "each" in line 2 of the claim. Appropriate correction is required.

4. Claim 21 is objected to because of the following informalities: it is unclear if claim 21 is claiming the whole set of first hooks to have a transverse dimension greater than the whole set of second hooks or if each hook from the first set of hooks has a transverse dimension greater than each hook from the second set of hooks. Appropriate correction is required.

5. Claim 22 is objected to because of the following informalities: it is unclear what plane the end portion of the strut is defining. In other words, the end portion of the strut can define any number of planes depending on what part of the strut is considered to fall within the end portion. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-8 and 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Palmaz (U.S. 4,793,348). Palmaz discloses a vessel filter comprising a first region and a second region, the filter movable between a collapsed position for delivery to the vessel and an expanded position for placement within the vessel, the first region having a filter portion having a converging region at a first end portion to direct particles toward the center of the filter, the second region being flared in the expanded position to have a transverse dimension increasing toward a second end portion opposite the first end portion and including a plurality of spaced apart struts (50) with adjacent struts being joined (Fig. 1B and 2).

8. Regarding claims 2, 3, and 10, the adjacent struts are joined by two connecting struts (30a, 30b), each of the two connecting struts extending inwardly toward the other

connecting struts. As seen in Fig. 2, the connecting struts converge at their ends to form a substantially V-shaped configuration.

9. Regarding claim 4, the struts terminate in vessel engaging hooks (54).
10. Regarding claims 5-7, the struts divide at an end portion (34) to form two connecting struts that extend away from each other, each connecting strut extending toward the connecting strut of an adjacent strut. The connecting struts of adjacent struts are joined at an intermediate region and further extend away from each other to join the connecting strut emanating from the same strut. As seen in Fig. 2, the connecting struts form a closed oval like region (44b).
11. Regarding claim 8, Palmaz discloses that filters made of a shape memory material such as nitinol are old and well known. Palmaz further discloses the filter is formed from a laser cut tube composed of shape memory material (col. 3 line 9 and col. 7 lines 53-57).
12. Regarding claim 11, the adjacent struts are interconnected by strut portions that initially extend away from each other and then extend towards one another forming a closed geometric configuration (44b).
13. Regarding claim 12, Palmaz discloses a vessel filter that is movable from a collapsed position to a substantially bell-shaped expanded position comprising a first and second region. The first region has a converging region at a first end portion (60) and the second region has a flared mounting portion (54) for mounting the filter within the vessel as seen in Fig. 2. The second region includes a plurality of struts extending

from the filter portion and dividing into oppositely directed struts at a first end and then converging with an oppositely directed strut of an adjacent strut.

14. Regarding claim 13 and 15, the mounting portion includes vessel-engaging members to enhance retention of the filter. These members are hooks (54).

15. Regarding claim 14, the oppositely directed struts emanating from the strut are rejoined to each other at a second end.

16. Claims 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Bosma et al. (U.S. 6,989,021). Bosma et al. discloses a vessel filter comprising a first region and a second region, the first region including a filtering section for capturing particles and having a first transverse dimension, the second region including a mounting section for mounting the filter within the vessel, the mounting section having a second transverse dimension greater than the first transverse dimension and including vessel engaging structure (26) to retain the filter, the first region further including a retrieval region (18) that includes a hook. The hook has a cutout exposing an internal annular surface (Fig. 3 and 4, "22"). The hook is meant to ease retrieval by a retrieving device and is therefore dimensioned to receive a portion of a retrieval sheath, such as a hook.

17. Regarding claim 19, the retrieval region includes a radiused region having first and second curved surfaces extending distally inwardly as seen in Fig. 3 and 4.

18. Regarding claim 20, the hook (22) of the retrieval region (18) has a curved wall spaced axially from the hook (the curved wall connecting (22) to (18)). This surface is curved and therefore provides a camming surface that can facilitate entry of the filter into a retrieval sheath.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Palmaz in view of Russell (U.S. 6,958,074). Palmaz discloses the invention substantially as stated above, but fails to disclose a plurality of axially spaced cutouts or recesses configured to receive a removal tool such as a retrieval snare to remove the filter fro the vessel.

21. However, Russell discloses that it is old and well known in the art to include a structure on the end of a vessel filter such as a hook or a coil as seen in Fig. 9D. This structure allows the filter be grasped or snared by a retrieval instrument for eventual removal of the filter (col. 9 lines 43-45). The helical structure has a plurality of recesses in the retrieval instrument can hook on to. Therefore, it would have been obvious to one of ordinary skill in the art to include a helical structure on the end of the device of Palmaz as made obvious by Russell in order to gain the advantage of having being able to easily remove the filter once it is no longer needed.

22. **Claims 16 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasmussen (U.S. 5,324,304) in view of Russell (U.S. 6,958,074). Rasmussen discloses a vessel filter comprising a first region and a second region. The first region

includes a filtering section for capturing particles and having a first transverse dimension, and the second region includes a mounting section for mounting the filter within the vessel, the mounting section having a second transverse dimension greater than the first transverse dimension and including a vessel engaging structure to retain the filter (col. 5 lines 35-40). Rasmussen fails to disclose a plurality of cutouts configured to receive a removal tool such as a retrieval snare to remove the filter from the vessel, the cutouts being axially spaced.

23. However, Russell discloses that it is old and well known in the art to use a coil on the end of a vessel filter, which can be used to provide axially spaced holes that a retrieval snare can engage to remove the filter (Fig. 9C, 9D). Rasmussen discloses a hook (3') on the first portion of the filter. Russell discloses that the use of a coil with axially spaced holes is an equivalent structure to the hook for filter retrieval. Regarding claim 17, the coil is helical. Substitution for one suitable retrieving structure with another equivalent structure is considered obviousness. Therefore, it would have been obvious to one of ordinary skill in the art to modify the device of Rasmussen by replacing the hook for the coil structure disclosed by Russell, as they are equivalent means of providing retrieving structure to the filter.

Allowable Subject Matter

24. **Claims 24 and 25** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not disclose

a vessel filter with a first set of hooks and a second set of hooks that are positioned at an end of the mounting section, the first set of hooks having a transverse dimension greater than a transverse dimension of the second set of hooks, each of the hooks of the first set of hooks formed of a transverse dimension substantially corresponding to a transverse dimension of two adjacent struts, and each of the hooks of the second set of hooks formed of a transverse dimension substantially corresponding to a transverse dimension of one strut.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen Sonnett whose telephone number is 571-272-5576. The examiner can normally be reached on 7:30-5:00, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCS
6/14/2006



GLENN K. DAWSON
PRIMARY EXAMINER